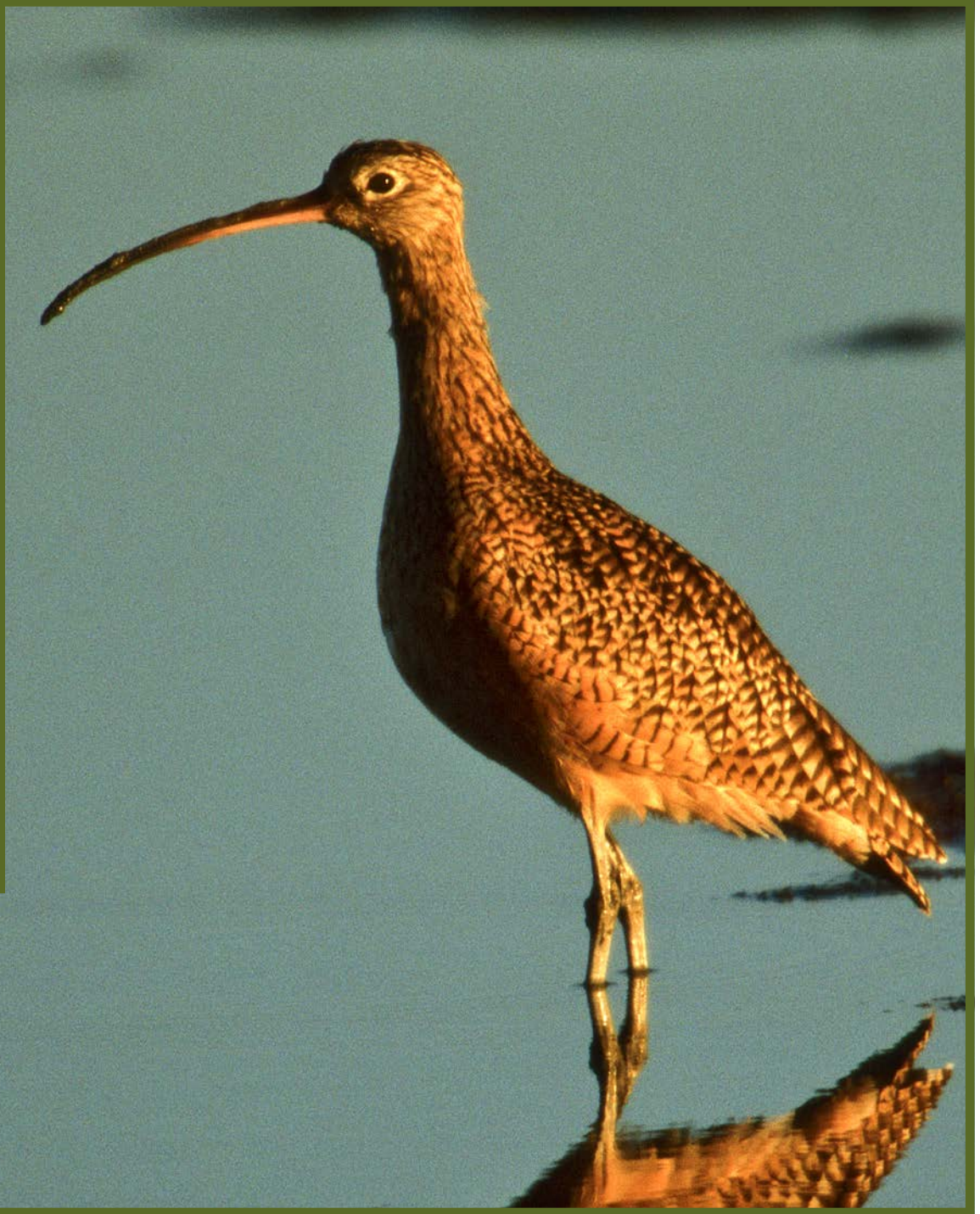


B

Biology Standard  
B.8.b.



# Biological Diversity: The World's Riches

## **California Education and the Environment Initiative**

Approved by the California State Board of Education, 2010

### **The Education and the Environment Initiative Curriculum is a cooperative endeavor of the following entities:**

California Environmental Protection Agency  
California Natural Resources Agency  
California State Board of Education  
California Department of Education  
Department of Resources Recycling and Recovery (CalRecycle)

### **Key Partners:**

Special thanks to **Heal the Bay**, sponsor of the EEI law, for their partnership and participation in reviewing portions of the EEI curriculum.

Valuable assistance with maps, photos, videos and design was provided by the **National Geographic Society** under a contract with the State of California.

### **Office of Education and the Environment**

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## **Lesson 1    Earth's Rich Biodiversity**

None required for this lesson.

## **Lesson 2    Levels of Biological Diversity**

None required for this lesson.

## **Lesson 3    Responses to Change**

None required for this lesson.

## **Lesson 4    Surviving Environmental Change**

None required for this lesson.

## **Assessments**

Biological Diversity: The World's Riches— Traditional Unit Assessment Master. . . . .	2
Biological Diversity and Surviving Change— Alternative Unit Assessment Master. . . . .	5



Name: \_\_\_\_\_

**Instructions:** Select the best answer and circle the correct letter. (2 points each)

1. Which of the following statements describes a biome?
  - a. a specific area containing an identifiable set of interdependent species that interact with each other and the abiotic components found there
  - b. large regions with similar ecosystems characterized by climatic conditions and the type of plant that dominates the area
  - c. the place where an organism lives and meets its needs
  - d. an area set aside to protect resources and natural systems
2. The geographic extent and biological diversity of ecosystems varies with \_\_\_\_\_.
  - a. the number of niches available
  - b. latitude
  - c. the number of predators in an area
  - d. Both a and b.
3. Which factor(s) affect the capacity of a natural system to recover from human-caused alterations?
  - a. the scale of the alteration, whether it is local, regional, or national
  - b. the scope of the alteration, whether it is small or large
  - c. the duration of the alteration, how long it lasts
  - d. All of the above.
4. High biological diversity \_\_\_\_\_.
  - a. increases the geographic extent of an ecosystem
  - b. decreases the capacity of a natural system to recover from a naturally occurring event
  - c. increases the likelihood that some species in an ecosystem can survive environmental changes
  - d. only occurs in tropical rainforests and salt marshes
5. Which human practices influence the biological diversity of different biomes?
  - a. logging and mining
  - b. farming
  - c. urban development
  - d. All of the above.

Name: \_\_\_\_\_

**Instructions:** Answer the following questions and complete the tasks in the spaces provided.  
(10 points each)

6. Why does biological diversity vary greatly in different ecosystems across the globe?

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7. Why is the Sonoran Desert more biologically diverse than the Great Basin Desert?

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8. Describe three ways in which large-scale farming can influence species composition and the geographic extent of a rainforest.

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Name: \_\_\_\_\_

9. The duration, scale, and scope of a disturbance can influence the capacity of an ecosystem to recover and the rate of that recovery. Describe and give at least two examples of this statement.

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10. Why does high biological diversity increase the likelihood that some organisms will survive major changes in the environment?

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## Biological Diversity and Surviving Change

### Alternative Unit Assessment Master

Name: \_\_\_\_\_

**Instructions:** Using all of your assignments from the unit, create a concept map that explains the relationship between biological diversity and the topics in each box. State at least two key points under each heading in the spaces provided. Use specific examples from the unit to support your positions. (10 points for each box)

The diagram is a concept map centered on 'Biological Diversity'. It consists of a central box with six lines radiating outwards to six surrounding boxes. Each surrounding box has a title and a set of horizontal lines for notes.

- Top Box:** Diversity in Ecosystems and Biomes
- Top-Right Box:** Levels of Biological Diversity
- Bottom-Right Box:** Types of Disturbances to Natural Systems
- Bottom Box:** Scope, Scale, and Duration of Natural and Human Disturbances and Effects
- Bottom-Left Box:** Chance of Surviving Change
- Top-Left Box:** Human Alterations to Natural Systems

**Central Box:** Biological Diversity













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